

Supporting information

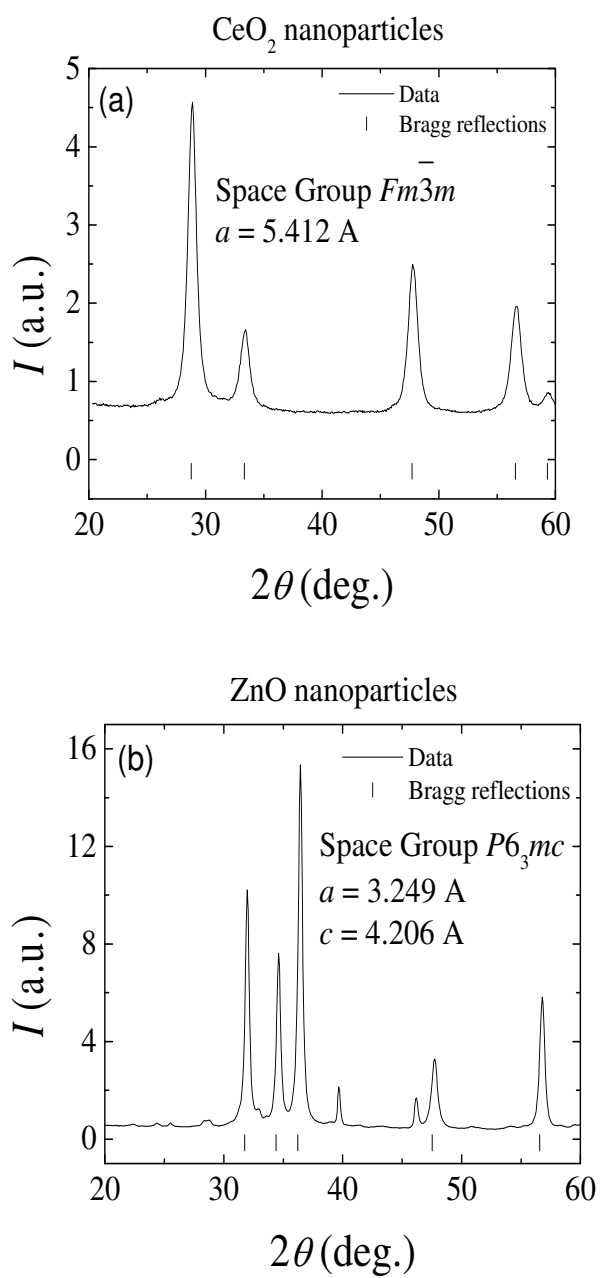


Figure 1. X-ray diffraction pattern of CeO₂ and ZnO nanoparticles. Powder XRD patterns were collected in the reflectivity geometry within the 20°-60° 2 θ -range ($\lambda=1.5406\text{\AA}$).

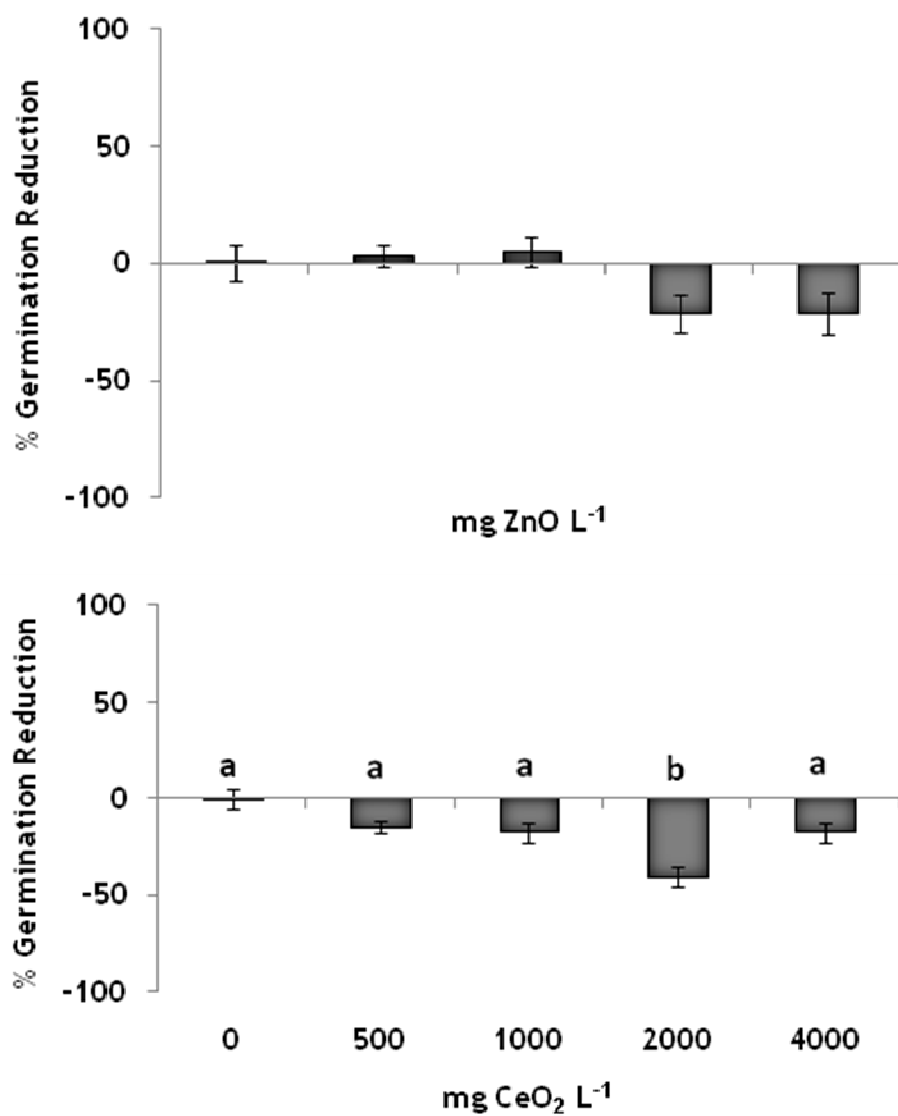


Figure 2 Percent germination reduction of soybean seeds treated with 0-4000 mg/L ZnO or CeO₂ NPs. Data are means \pm SE of three replicates. Lowercases indicate statistically significant differences at *P* < 0.05.

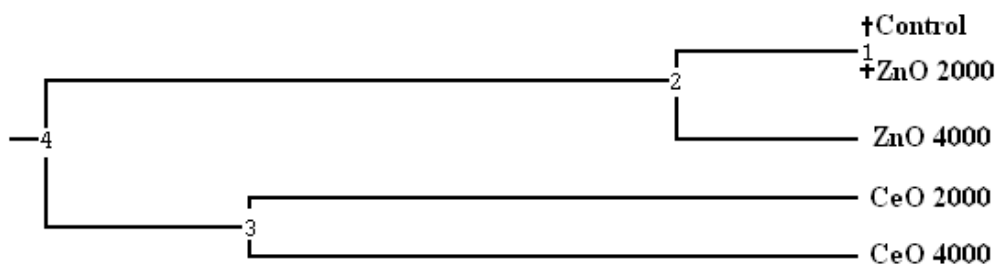


Figure 3 Dendrogram using the UPGMA based on DNA polymorphism among the roots of soybean seedlings treated with 0 (control), 2000, and 4000 mg L⁻¹ of ZnO and CeO₂ nanoparticles.